

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Kevin M. Ferguson
Serial No.: 10/780,815
Filed: February 18, 2004
For: AUTOMATICALLY SETTING GAIN AND OFFSET BASED ON REGION
OF INTEREST.
Examiner: Toan M. Le
Art Unit: 2863

Appeal Brief in Accordance With 37 C.F.R. § 41.37

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Examiner's final rejection of the above-identified application dated March 29, 2007.

Since the Notice of Appeal was received July 2, Appellant respectfully requests a four (4) month extension of time. Please charge any fee for the extension of time to Deposit Account 20-0352, along with the fee for submitting this Appeal Brief. No additional fee is believed due. However, if an additional fee, including an additional extension of time fee, is due please charge that fee to Deposit Account 20-0352.

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Real Party in Interest

The real party in interest in this case is Appellant's assignee, Tektronix, Inc., an Oregon corporation.

Related Appeals and Interferences

There are no prior and pending appeals, interferences or judicial proceedings known to Appellant, Appellant's legal representative or assignee which may be related to, directly affect or have a bearing on the Board's decision in this appeal.

Status of Claims

Claims 1-5 stand finally rejected under 35 U.S.C. § 101 and are being appealed.

Claims 1-5 stand finally rejected under 35 U.S.C. § 102 and are being appealed.

Status of Amendments

No amendments have been submitted by Appellant after the Examiner's final rejection.

Summary of Claimed Subject Matter

A summary of the claimed subject matter is provided, with reference to page numbers and line numbers. Numbers in bold provided in the following description refer to the item numbers identified in Fig. 1.

Independent claim 1 is method claim, as originally filed, related to automatically setting gain and offset for the measurement and display of a signal. A signal is acquired, as shown at step **12** (see page 3, lines 2-4). A region of interest within the acquired signal is defined (see page 2 lines 10-12). Max values within the region of interest are determined **14** (see page 2, lines 12-14 and page 3, lines 5-6). Min values within the region of interest are determined **16** (see page 2, lines 12-14 and page 3, lines 5-6). These max and min values taken from within the region of interest are tested for clipping on a display **20** (see page 2, lines 13-14, and page 3, lines 6-10). A gain and offset for the signal is calculated from the max and min value when either the max or min value clips in the testing step **22** (see page 2, lines 14-18, and page 3, lines 7-10). The gain and offset are applied to the signal in the acquiring step as indicated by the arrow connecting the Set New Gain and Offset block **22** and the Acquisition block **12** (see page 2, lines 14-18, and page 3, lines 10-13).

Grounds of Rejection to be Reviewed on Appeal

Whether claims 1 through 5 are unpatentable under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Whether claims 1 through 5 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by Odenheimer *et al.* (US Patent No. 4,743,844).

Argument

Claims 1 through 5 are directed to a new and useful process.

The Examiner rejected claims 1 through 5 stating in the final rejection that: “The claims are directed to a judicial exception....” Despite Appellant’s argument that no judicial exception was identified and that accordingly, it was improper to proceed to though the analysis provided in the Interim Guidelines on Patent Eligible Subject Matter (see MPEP 2106), the rejection still fails to identify any judicial exception, and instead proceeds to the end of the analysis focusing on tangible result. The rejection states that “Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed.” The question of whether or not there is a tangible result should only arise, if in fact the claims are directed to a judicial exception. There mere assertion of this without at least identifying the exception fails to establish any basis upon which further analysis and rejection can be made.

As quoted by the United States Supreme Court “Congress intended § 101 to extend to ‘anything under the sun that is made by man.’” *State Street Bank & Trust v. Signature Financial Group* 47 USPQ2d 1596, 1600 (1998); citing *Diamond v. Chakrabarty*. 206 USPQ 193 (1980)).

As the Supreme Court held, Congress chose the expansive language of 35 U.S.C. § 101 so as to include “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). 35 U.S.C. § 101 provides that new, and useful process, and any new and useful improvement thereof are patentable. Claims 1 – 5 are directed to such new and useful processes, and improvements thereof. “The subject matter courts have found to be outside of, or exceptions to, the four statutory categories of invention is limited to abstract ideas, laws of nature and natural phenomena.” *Interim Guidelines*, page 13. Claims 1 – 5 are clearly not related to laws of nature or natural phenomena, as they relate to setting gain and offset for making a measurement. Appellant contends that claims 1 – 5

are not abstract ideas either. Rather, claims 1 – 5 are directed to methods employing abstract ideas, to perform a real-world function, which may be patentable subject matter. *Interim Guidelines*, page 17.

MPEP 2107.02 provides that “In most cases, an applicant’s assertion of utility creates a presumption of utility that will be sufficient to satisfy the utility requirement of 35 U.S.C 101.” The Appellant has pointed out that the claims and the specification make clear to one of ordinary skill in the art that the process as claimed in claims 1 – 5 provides a method that sets gain and offset for the measurement of a signal, which is useful for the performance of a measurement task. The measurement tasks are understood by those skilled in the art to be useful for measuring a signal, such as for example video signals as described in the specification. The utility associated with making measurements related to video signals should be clear to anyone who relies on these signals to distribute, or receive video images.

The Appellant would like to point out that while some language in the *Interim Guidelines* seems to suggest that the claim itself must provide for a useful result, the claim in *State Street Bank* did not include the steps of being relied upon by regulatory authorities or the step of being used in subsequent trades, even though these were mentioned as the “useful, concrete and tangible” result related to the subject matter claimed. *State Street Bank & Trust v. Signature Financial Group*, 149 Fed 3d 1368, 1373 47 USPQ2d 1596, 1600 (Fed. Cir. 1998). Similarly, here the “useful, concrete and tangible” result is a measurement display including a region of interest without clipping, etc.. Furthermore, even though *State Street* did not require the utility to be provided in the claim, in the present case Claim1 clearly provides that it is directed to “automatically setting gain and offset for the **measurement** and **display** of a signal” in the preamble of the claim (emphasis added). Accordingly, claims 1 through 5 are directed to a patentable new, and useful process. Appellant respectfully requests reversal of the rejection, and allowance of claims 1 through 5.

Claims 1 through 5 are not anticipated by US Patent 4,743,844.

Claims 1-5 were rejected as being anticipated by Odenheimer *et al.* (US Patent Number 4,743,844).

35 U.S.C. § 102(b) provides that “A person shall be entitled to a patent unless (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Since a person is entitled to a patent unless proper grounds for a rejection are provided, the initial burden rests on the Examiner to provide a proper rejection. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (See MPEP 2131). Furthermore, “anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claims.” *Lindemann, Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984).

The Examiner has failed to provide a basis upon which Odenheimer *et al.* can be read upon claims 1 – 5 to support a rejection based upon anticipation.

Appellant argued over Odenheimer *et al.* in response to the rejection in the first office action stating that “Odenheimer *et al.* fails to describe the step of “defining a region of interest within the acquired signal.”

In response, the final rejection refers to Fig. 7 and provides a detailed analysis of determining the maximum and minimum peak levels of the input signal, and then concludes the Odenheimer *et al.* “do describe the step of ‘defining a region of interest within the acquired signal.’” However, Fig. 7 shows step **162** describing “SET MAIN AND WINDOW TRIGGER LEVEL TO MIN./MAX. MIDPOINT.” In an oscilloscope, it is well understood that it is the trigger that prompts the acquisition of the signal. Accordingly, the method shown at Fig. 7 in Odenheimer *et al.* has not even acquired a signal as yet, but has rather

characterized the input signal to set a proper trigger. Furthermore, while measurements of min and max are described, there is no mention of “defining a range of interest within the acquired signal.” As described in the present specification, by using the max and min values within the region of interest it is possible to provide a superior display of that region of interest, even when the signal outside the region of interest is allowed to clip (see page 2, line 21). Odenheimer *et al.* does not describe and does not anticipate this element of claim 1, and therefore does not anticipate claim 1 as originally filed.

Accordingly, Appellant respectfully requests that the rejection of claims 1 through 5 be reversed.

Conclusion

For all these reasons, the rejections of claims 1 through 5 should be reversed, as claims 1 through 5 relate to patentable subject matter; and are not anticipated by Odenheimer *et al.*.

Accordingly, Appellant requests that the rejections of claims 1-5 be reversed, and that this case be passed on to issuance.

Respectfully submitted,

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December 3, 2007

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Claims Appendix

1. A method of automatically setting gain and offset for the measurement and display of a signal comprising the steps of:
 - acquiring the signal;
 - defining a region of interest within the acquired signal;
 - determining max and min values for the acquired signal within the region of interest;
 - testing the max and min values for clipping on a display;
 - calculating from the max and min values a gain and offset for the signal when either the max or min value clips in the testing step; and
 - applying the gain and offset to the signal in the acquiring step.
2. The method as recited in claim 1 further comprising the step of reiterating the determining, testing; calculating and applying steps using the gain and offset from an immediately prior calculating step until a criterion is satisfied.
3. The method as recited in claim 2 wherein the criterion comprises neither max and min value clips in the testing step.
4. The method as recited in claim 2 wherein the criterion comprises a number of iterations equaling a specified maximum.
5. The method as recited in claim 2 wherein when only one of the max and min values clips in the testing step only offset is calculated in the calculating step in subsequent iterations until either both max and min values clip or neither clip.

Evidence Appendix

No evidence was submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, and no other evidence was entered by the Examiner.

Related Proceedings Appendix

There are no related proceedings identified in this Brief.